Allen-Bradley 1756 Series Service Manual

1756-L72

1. Description

Mfr. Part Number:

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Part	Number/Catalog No. 1756-L72
Series	ControlLogix
I-O	Memory 0.98 MB
Module	Type Processor Module
User	Memory 4 MB
Nonvolatile	Memory 1 GB (1784-SD1 ships with every controller) 2 GB (1784-SD2)
Maximum	I-O 128,000
Communication	1 port USB
USB	Port Communication Programming, configuration, and on-line edits
Maximum	Analog I-O 4,000
Maximum	Digital I-O 128,000
Current	Draw (1.2 Volts DC) 5 milliamps
Current	Draw (5.1 Volts) 800 milliamps
User	Memory 4MB
Power	Dissipation 2.5 Watts
Backplane	Current (1.2 Volts DC) 5 mA
Thermal	Dissipation 8.5 BTU per hour
Backplane	Current (5.1 Volts DC) 800 mA
Isolation	Voltage 30 Volts Continuous
Weight	0.25 kg (0.55 lb)
Enclosure	None
Relative	Humidity 5-95 percent
Operating	shock 30G
UPC	10612598876027
Redundancy	Full Support
UNSPSC	32151705
Programming	Languages Relay ladder Structured text Function block SFC" Description
The	Allen-Bradley 1756-L72 is a ControlLogix Series Programmable Automatio

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3. Product Information

Mfr. Part Number:

1756-L72

Manufacturer: Allen-Bradley / Rockwell Automation

Description: Allen Bradley 1756-L72 ControlLogix Logix5572 Processor with 4 Mbytes Memory

Full Description: Allen Bradley 1756-L72 ControlLogix Logix5572 Processor with 4MB User Memory, 0.98MB I/O memory; 128,000 Digital I/O, 4,000 Analog I/O; 1-USB Port USB 2.0, full speed, 12 Mbps (EtherNet/IP, ControlNet, DeviceNet, Data Highway Plus™, Remote I/O, SynchLink™, Third-party process and device networks) The 1756-L72 is a controller module for the ControlLogix Modular Programmable Automation Controller (PAC) by Allen-Bradley. It comes with Memory of 4MB, and built-in USB communication interface. It is capable of 128,000 Discrete I/O and 4000 Analog I/O memory with an allocated I/O memory of 0.98 MB. Technical specifications for 1756-L72

Manufacturer Rockwell Automation

Brand Allen-Bradley

Part Number/Catalog No. 1756-L72

Series ControlLogix

I-O Memory 0.98 MB

Module Type Processor Module

User Memory 4 MB

Nonvolatile Memory 1 GB (1784-SD1 ships with every controller) 2 GB (1784-SD2)

Maximum I-O 128,000

Communication 1 port USB

USB Port Communication Programming, configuration, and on-line edits

Maximum Analog I-O 4,000

Maximum Digital I-O 128,000

Current Draw (1.2 Volts DC) 5 milliamps

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Power Dissipation 2.5 Watts

Backplane Current (1.2 Volts DC) 5 mA

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Isolation Voltage 30 Volts Continuous

Weight 0.25 kg (0.55 lb)

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Enclosure None

Relative Humidity 5-95 percent

Operating shock 30G

UPC 10612598876027

Redundancy Full Support

UNSPSC 32151705

Programming Languages Relay ladder Structured text Function block SFC" Description

The Allen-Bradley 1756-L72 is a ControlLogix Series Programmable Automation Controller (PAC). It has an available 4 MB user memory for data and logic and 0.98 MB I/O memory. The controller ships with a 1 GB SD card, the 1784-SD1, that you can use as optional nonvolatile memory storage. You can also upgrade it to 2 GB via the 1784-SD2 card if the storage is not enough for your use. It is recommended that the SD card is installed to the controller and to only use those that are sold by Rockwell Automation, as these cards have been fully tested to work with the controllers. Using other SD cards poses a risk of experiencing data loss or corruption. The SD cards are primarily used to store diagnostic data that is written automatically when a fault occurs. These data are used by Rockwell Automation for troubleshooting purposes. The 1756-L72 controller also comes with three capacitor energy storage modules. The 1756-ESMCAP/1756-ESMCAPK is a removable module available in every controller. Another removable module is the 1756-ESMNSE/1756-ESMNSEK that has no residual WallClockTime power backup. The only nonremovable module is the 1756-ESMNRM/1756-ESMNRMK that helps prevent USB connection and SD card use to help secure the controller. You can use the 1756-L72 controller together with specific modules to create an Armor ControlLogix controller. It can support controller redundancy when paired with a similar controller and in the same ControlNet network. ControlLogix chassis that are compatible with this controller are 1756-A4, 1756-A4K, 1756-A7, 1756-A7K, 1756-A10, 1756-A10K, 1756-A13, 1756-A13K, 1756-A17, and 1756-A17K. It also has 1 full-speed USB 2.0 port available and a 4-character alphanumeric display for you to view its current status. Several communication options are available with the 1756-L72 controller and these are Data Highway Plus, DeviceNet, Ethernet/IP, Remote I/O, SynchLink, ControlNet, and Third-party process and device networks. This controller has a continuous isolation voltage of 30 Volts and has been type tested for 60 seconds at 500 Volts AC. It has a current draw of 5 mA at 1.2 Volts DC and 800 mA at 5.1 Volts DC. Power dissipation of the 1756-L72 controller is 2.5 Watts and its thermal dissipation is 8.5 BTU/hour. Storage temperature of the controller ranges from -40 to 85 Degrees Celsius, while its operating temperature range is 0 to 60 Degrees Celsius. It has a vibration of 2 G at 10 to 500 Hertz, an operating shock of 30 G, and a non-operating shock of 50 G.

The Allen-Bradley 1756-L72 belongs to the most recent ControlLogix product category. This part number represents a ControlLogix controller with 4Mb user memory and pre-allocated I/O memory capacity of 0.98 MB.

The 1756-L7x Controllers introduced several upgrades. For the non-volatile memory, this controller used Secure Digital (SD) cards. By default, this controller is shipped with a 1GB non-volatile memory. Replacement modules for this non-volatile memory are 1756-SD1 and 1756-SD2. Additionally, this controller does not use batteries. Instead of RS232 communication port, this controller has USB communication port that functions similar to the RS232 however, more robust and does not require expensive communication cables. If required, the controller’s integrated memory ma be upgraded or downgraded with the use of the Flash utility tool.

This controller has Front Panel Display that continuously promps the Devices Status, Operating Mode and other diagnostics. The operating Mode is changeable with the use of a

supplied key, small form factor occupying only a single slot of the 1756 Chassis and a easily attachable/ Detachable module.

This Programmable Automation Controller (PAC) are OPC UA compliant which enables a much easier configuration to the control and data network. It also support communication protocols such as Ethernet I/P; ControlNet; DeviceNet; Data Highway Plus; Remote IO; Synchlink; Third party process and device networks.

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